

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT1. CONTRACT ID CODE
07PAGE OF PAGES
1 3AMENDMENT/MODIFICATION NO.
103. EFFECTIVE DATE
June 14, 20044. REQUISITION/PURCHASE REQ. NO.
See Page 2

5. PROJECT NO. (If applicable)

ISSUED BY CODE PS41-F

7. ADMINISTERED BY (If other than Item 6) CODE

PS41-F

Procurement Office
George C. Marshall Space Flight Center
National Aeronautics and Space Administration
Marshall Space Flight Center, AL 35812

PS41-F/Lizette Kummer/ 256-544-3457
Lizette.M.Kummer@ nasa.gov

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code)

COLSA Corporation
6726 Odyssey Drive
Huntsville, AL 35802
Attn: Pat Hodges

TIN# 63-0798322

Code 4U825

FACILITY CODE

(v)

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

10A. MODIFICATION OF CONTRACT/ORDER NO.

NNM04AA07C

10B. DATED (SEE ITEM 13)

December 4, 2003

X

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Page 2

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
FAR 43.103(a)

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 3 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

See Page 2 for description of this modification.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

George E. Harvey
Contracting Officer

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

BY Original Signed by Robert L. Martin for George E.
Harvey

June 14, 2004

(Signature of person authorized to sign)

(Signature of Contracting Officer)

Standard Form 30 Continued

Continuation of Block 12 Accounting and Appropriation Data:
And Block 4. Requisition/Purchase Req. No.

4200065190	62-336-37-24-05	\$ 80,000
	62-377-10-10-11	\$ 13,959
	TOTAL :	\$ 93,959

Continuation of Block 14 Description of Amendment/Modification:

1. TABULATION OF CONTRACT CHANGES:

	<u>Negotiated Est. Cost</u>	<u>Award Fee Earned</u>	<u>Potential Award Fee</u>	<u>Incentive Fee Earned</u>	<u>Potential Incentive Fee</u>	<u>Total Contract Value</u>	<u>Total Sum Allotted</u>
Previous Total	\$104,341,126	\$ 0	\$ 4,185,495	\$ 0	\$2,253,727	\$110,780,347	\$18,537,671
<i>This Mod</i>	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$93,959
Revised Total	\$104,341,126	\$ 0	\$ 4,185,495	\$ 0	\$2,253,727	\$110,780,347	\$18,631,630

2. The purpose of this modification is to:

a) incorporate REVISION A Dated June 14, 2004 to Data Procurement Document No. 1016 of this contract. The Revision A is attached. Changes are indicated by a vertical line adjacent to affected text and listed in the Document Change Log and the Page Revision Log. Please substitute the current BASIC issue - Attachment J-2 of the contract, with the attached Revision A. The revision incorporates previous changes and new changes. The new changes are needed to conform the Date Types listed in the DRL with the corresponding Data Types in the DRD as follows:

i) Reference page J-2-9 Titled "HUNTSVILLE OPERATIONS SUPPORT CENTER HOSC Data Requirements List." DRD 1016MA-004 TITLE: Work Breakdown Structure(WBS) and WBS Dictionary DATA TYPE is changed from 3 to 2.

ii) Reference page J-2-16 DATA REQUIREMENTS DESCRIPTION (DRD)
DRD NO. 1016CM-001 TITLE: Configuration Management Plan Item 3. DATA TYPE is changed from 2 to 1.

iii) Reference page J-2-33 DATA REQUIREMENTS DESCRIPTION (DRD)
DRD NO. 1016SA-001 TITLE: On-Site Safety and Health Plan Item 3. DATA TYPE is changed from 2 to 1.

b) to add increase the amount of funds allotted for the performance of this contract from \$ 18,537,671 by \$ 93,959 to \$ 18,631,630 pursuant to FAR 52.232-22 Limitation of Funds (Apr 1984) and. Clause B.6 – Contract Funding (18-52.232-81)(Jun 1990). This increase is not fee bearing. Please substitute the current contract page with its replacement page attached. Changes are indicated by a vertical line in the outer margin of each replacement page next to the affected text.

Current Page

B-5
DPD No. 1016 BASIC

Replacement Page

B-5
DPD No. 1016 REV A

3. The total contract value remains unchanged at \$110,780,347.00. All other terms and conditions pursuant to this contract remain unchanged and in full force and effect.

B.5 Premiums For Scheduled Overtime (MSFC 52.222-90) (Feb 2001)

Pursuant to the clause entitled "Payment for Overtime Premiums," the amount of overtime premium authorized shall not exceed the amount specified below for the indicated period.

<u>Period</u>	<u>Amount</u>
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Base Period (Yrs 1 - 3)	
--------------------------------	--

Option Period 1	(b)(4)
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Option Period 2	
------------------------	--

(End of Clause)

B.6 Contract Funding (NFS 1852.232-81) (Jun 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$17,539,523. This allotment is for Huntsville Operations Space Center (HOSC) Mission Support Services and covers the following estimated period of performance: Date of contract award through August 31, 2004.

(b) An additional amount of \$1,092,107 is obligated under this contract for payment of fees.

(c) Recapitulation of funding is as follows:

	<u>Previous</u>	<u>This Action</u>	<u>Total</u>
Estimated Cost:	\$ 17,445,564	\$ 93,959	\$17,539,523
Award Fee Pool:	\$ 709,869	\$ 0	\$ 709,869
Performance Incentive Fee Pool	\$ 382,238	\$ 0	\$ 382,238
Total Sum Allotted:	\$ 18,537,671	\$ 93,959	\$18,631,630

(End of Clause)

B.7 Task Ordering Procedure (NFS 1852.216-80) (Oct 1996)

(a) Only the Contracting Officer may issue task orders to the Contractor, providing specific authorization or direction to perform work within the scope of the contract and as specified in the schedule. The Contractor may incur costs under this contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.

DATA PROCUREMENT DOC.

NO.

1016

ISSUE

Revision A

NNM04AA07C

CONTRACT/RFP

EXHIBIT NUMBER

J-2

ATTACHMENT NUMBER

Huntsville Operations Support Center (HOSC)

PROJECT/SYSTEM

DATA PROCUREMENT DOCUMENT

COLSA CORPORATION

CONTRACTOR

June 14, 2004

DATE

National Aeronautics and
Space Administration

National Aeronautics and Space Administration					DATA PROCUREMENT DOC.	
DOCUMENT CHANGE LOG					NO. ISSUE	
					1016 Revision A	
INCORPORATED REVISIONS OUTSTANDING REVISIONS				AS OF: Effective Date 06-14-04		SUPERSEDING: 09-24-03
						PAGE: 1 of 1
AUTHORITY	PORTION AFFECTED - PAGE NO./NO.				REMARKS	
	INTRO	SGR	DRL	DRD		
Contract Mod.07				1016MA-003	Item 6: Changed title to: "Monthly Progress Report"	
					Item 15.1 Inserted "Monthly" prior to "Progress Report"	
					Item 15.3(a): Inserted "to WBS Level III" to end of sentence	
					Item 15.4: Inserted "Monthly" prior to "Progress Reports"	
				1016MA-006	DELETED	
				1016MA-007	Item 6: Changed title to: "HOSC Software Release Quarterly Report"	
					Item 7: Changed DESCRIPTION/USE to read: "To provide identification and tracking measures or metrics for HOSC Software releases. The release information, as established by NPD 2210.1, will be reported quarterly to the Software Release Authority at MSFC to enable compliance with reporting to the Director, Commercial Technology Division at NASA Headquarters."	
					Item 12: Changed "Monthly" to "Quarterly"	
					Item 15.3: Changed Contents to read: "For each software product (e.g. EHS, EPC, IVoDS), provide a list of approved users, including user organization/location/etc., applicable payload/experiment, and software version"	
Contract Mod.11			X		Additional changes incorporated in Mod. 07: Changed Title of MA-003 to "Monthly Progress Report", lined through MA-006 to indicate deletion, and changed Title of MA-007 to "HOSC Software Release Quarterly Report"	
					The following change noted in the DCL for Mod. 07 was not incorporated but is for Rev. A:	
				1016MA-007	Item 7: Changed DESCRIPTION/USE to read: "To provide identification and tracking measures or metrics for HOSC Software releases. The release information, as established by NPD 2210.1, will be reported quarterly to the Software Release Authority at MSFC to enable compliance with reporting to the Director, Commercial Technology Division at NASA Headquarters."	
			X		DRL and Item 9: Changed QS to QD throughout entire DPD	
				1016MA-004	Item 3: Changed Data Type from 3 to 2	
				1016CM-001	Item 3: Changed Data Type from 2 to 1	
				1016SA-001	Item 3: Changed Data Type from 2 to 1	

MSFC - Form 3461-1 (Rev August 1970)

National Aeronautics and Space Administration			DATA PROCUREMENT DOC.		
PAGE REVISION LOG			NO. ISSUE		
			1016 Revision A		
NOTE: The current revision is denoted by a vertical line in the outer margin adjacent to the affected text.			AS OF: 06-14-04		PAGE: 1 of 1
INSERT LATEST REVISED PAGES.			DISCARD SUPERSEDED PAGES.		
ITEM	PAGE	STATUS	ITEM	PAGE	STATUS
MA-003	J-2-21 , J-2-22	Rev.			
MA-006	J-2-26	DRD Deleted			
MA-007	J-2-27	Rev.			

MSFC - Form 3461-2 (Rev August 1970)

1.0 INTRODUCTION

- 1.1 Scope: Subject to the Rights in Data clause, this Data Procurement Document (DPD) sets forth the data requirements in each Data Requirements Description (DRD) and shall govern that data required by the DPD for the contract. The contractor shall furnish data defined by the DRD's listed on the Data Requirements List (DRL) by category of data, attached hereto, and made a part of this DPD. Such data shall be prepared, maintained, and delivered to MSFC in accordance with the requirements set forth within this DPD. In cases where data requirements are covered by a Federal Acquisition Regulation (FAR) or NASA FAR Supplement (NFS) regulation or clause, the regulation will take precedence over the DPD, per FAR 52.215-8.
- 1.2 DPD Description: This DPD consists of a Document Change Log, a Page Revision Log, a Table of Contents, an Introduction, a Statement of General Requirements, DPD maintenance procedures, a DRL, and the DRD's.
- 1.2.1 General Requirements: The general requirements, as specified in paragraph 2.0 of this DPD, prescribe those requirements applicable to the preparation, maintenance, and delivery of data that are better defined in aggregate than in the individual DRD's.
- 1.2.2 Data Requirements List (DRL): Throughout the performance of the contract, the DRL provides a listing by data category of the data requirements of the DPD.
- 1.2.3 Data Requirements Descriptions (DRD's)
- 1.2.3.1 Each data requirement listed on the DRL is given complete definition by a DRD. The DRD prescribes content, format, maintenance instructions, and submittal requirements.
- 1.2.3.2 For the purpose of classification and control, DRD's of this DPD are grouped into the following broad functional data categories:

<u>CATEGORY SYMBOL</u>	<u>DESCRIPTION</u>
CD	Contractual Data
CM	Configuration Management
LS	Logistics/Support
MA	Management
OP	Operations
QE	Quality Engineering
SA	Safety
SE	Systems Engineering
VR	Verification

- 1.2.3.3 The symbols representing these data categories form part of the prefix of the DRD identification number. The first numerical characters reflect the DPD number.
- 1.2.3.4 To facilitate the usage and maintenance of the DPD, the DRD's have been sectionalized in accordance with the above data categories.

- 1.2.3.5 The DRD's are filed by data category and are in alpha-numeric sequence as listed on the DRL page (or pages) that precedes the DRD's.
- 1.2.4 Document Change Log (DCL) and Page Revision Log (PRL): The Document Change Log chronologically records all revision actions that pertain to the DPD. The Page Revision Log describes the current revision status of each page of the DPD and thus, at all times, provides its exact configuration.
- 1.2.5 DPD Maintenance Procedures: Maintenance procedures define the detailed methods to be employed in maintaining the DPD. Detailed maintenance procedures are specified in paragraph 3.0 of this DPD.
- 1.3 Data Types for Contractual Efforts: The types of data and their contractually applicable requirements for approval and delivery are:

TYPEDESCRIPTION

- 1 All issues and interim changes to those issues require written approval from the requiring organization before formal release for use or implementation.
- 2 MSFC reserves a time-limited right to disapprove in writing any issues and interim changes to those issues. Data shall be submitted to the procuring activity for review not less than 45 calendar days prior to its release for use or implementation. The contractor shall clearly identify the release target date in the "submitted for review" transmittal. If the contractor has not been notified of any disapproval prior to the release target date, the data shall be considered approved. To be an acceptable delivery, disapproved data shall be revised to remove causes for the disapproval before its release.
- 3 These data shall be delivered by the contractor as required by the contract and do not require MSFC approval. However, to be a satisfactory delivery, the data must satisfy all applicable contractual requirements.
- 4 These data are produced or used during performance of the contract and are retained by the contractor. They shall be delivered when MSFC requests it according to instructions in the request. The contractor shall maintain a list of these data and shall furnish copies of the list to MSFC when requested to do so.
- 5 These data are incidental to contract performance and are retained by the contractor in those cases where contracting parties have agreed that delivery is not required. However, the Contracting Officer or the Contracting Officer's Representative shall have access to and can inspect this data at its location in the contractor's or subcontractor's facilities.

2.0 STATEMENT OF GENERAL REQUIREMENTS

- 2.1 Applicable Documents: Documents included as applicable documents in this DPD are the issue specified in the Performance Work Statement, and form a part of the DPD to the extent specified herein. References to documents other than applicable documents in the data requirements of this DPD may sometimes be utilized. These do not constitute a contractual obligation on the contractor. They are to be used only as a possible example or to provide related information to assist the contractor in developing a response to that particular data requirement.

2.2 Subcontractor Data Requirements

2.2.1 The contractor shall specify to subcontractors and vendors, if any, the availability source of all data required for the satisfactory accomplishment of their contracts. The contractor shall validate these requirements for documents when appropriate; where the requirement concerns other contractor data, the contractor shall provide his subcontractor or vendor with the necessary documents. All such requests shall be accomplished under the auspices of the contractor.

2.2.2 Reference to subcontractor data in the contractor's responses is permissible, providing the references are adequate and include such identification elements as title, number, revision, etc., and a copy of the referenced data is supplied with the response document at time of delivery to MSFC.

2.3 Distribution

2.3.1 Distribution of required documentation shall be in quantities determined by the Contracting Officer. Recipient names and email (if applicable) addresses shall be noted on a separate distribution list to be furnished by the Contracting Officer.

2.3.2 Electronic submission of data deliverables is preferred. The preferred formats include Microsoft Word, Excel, PowerPoint, or Adobe Acrobat PDF as appropriate. The software versions shall be confirmed prior to submittals. Marshall Policy Directive (MPD) 2210.1 specifies the requirements for utilizing the Documentation Repository. Electronic data submittals to the Repository shall be coordinated with the Repository. MSFC has the capability of receiving electronic data files for importing into the MSFC Documentation Repository system. Computer-Aided Design (CAD) drawings shall be submitted in the original native vector, Hewlett-Packard Graphic Language (HPGL) and raster image formats.

2.4 Printing: All printing, duplicating, or binding shall be in accordance with NFS 1852.208-81, Restrictions on Printing and Duplicating. Printing of formal reports and Type 1 and 2 data in book format shall be in accordance with the following general specifications:

- a. Method of reproduction – offset/xerography.
- b. Finished size – 8 1/2" X 11".
- c. Paper – 20-pound opaque bond.
- d. Cover – Litho cover stock.
- e. Pages will be printed on both sides; blank pages will be avoided when possible.
- f. Oversize pages will be avoided when possible, but if necessary will be folded to 8 1/2" X 11".
- g. Binding shall be the most economical method commensurate with the size of the report and its intended use.

2.5 Microfilm: When microfilm of drawings, specifications, and associated lists is required, it shall be 35mm silver halide negative, first generation (Type 1, Class 1) in accordance with ANSI/AIIM MS32-1987 (Microrecording of Engineering Source Documents on 35mm Microfilm). Input Form DD Form 1562, Dual Purpose Engineering Document Card, shall be used for microfilm purposes. The microfilm shall be submitted in the form of roll microfilm or master microfilm aperture cards. If microfilm rolls are used, they shall not exceed 100 feet in length. Deviations from these requirements shall be approved by the Contracting Officer. All deviations shall be coordinated with the MSFC Micrographics Manager, located in the Documentation Repository.

2.6 Contractor's Internal Documents: The contractor's internal documents shall be used to meet the data requirements of this DPD unless a specific format is required by the applicable DRD.

- 2.7 Document Identification: Type 1 and 2 documents published by the contractor and submitted in response to the data requirements of this DPD shall be identified within an organized identification numbering system prescribed to MSFC by the contractor and, if applicable, as approved by MSFC. This number, change legend, date, and title constitute the minimum identification of the specific document and shall appear on the cover and title page. The contract number shall also appear on the cover and title page as separate markings. The originator and organization shall be included on the title page. The document number, change legend, and date shall appear on each page of the document. In the front matter of each document, identify the DPD number and applicable DRD number(s) required for document preparation. Successive issues or revisions of documents shall be identified in the same manner as the basic issue and shall have appropriate change identification. Drawings and ECP's are excluded from the marking provisions of this paragraph. All Type 1 documentation, excluding configuration management requirements, will be marked "PRELIMINARY PENDING MSFC APPROVAL," and once approved shall be reissued with "APPROVED BY MSFC" and the date and approval authority annotated on the cover.
- 2.8 Reference to Other Documents in Data Submittals: All referenced documents shall be made readily available to the cognizant MSFC organization upon request. The contractor should make sure that the references are available to MSFC in a manner which does not incur delays in the use of the response document.
- 2.9 Maintenance of Type 1 Document Submittals
- 2.9.1 Revisions of Type 1 documentation may be accomplished either by individual page revision or by a complete reissue of the document identified in accordance with requirements of 2.7 above, with the exception of drawings (which shall be revised in accordance with contract configuration management requirements).
- 2.9.2 Individual page revisions shall be made as deemed necessary by the contractor or as directed by the Contracting Officer.
- 2.9.3 A Type 1 document shall be completely reissued when, in the opinion of the contractor and/or MSFC, the document has been revised to the extent that it is unusable in its present state, or when directed by the Contracting Officer. When complete reissues are made, the entire contents of the document shall be brought up to date and shall incorporate revised pages. All revisions shall be recorded. A revision log shall identify complete reissues except for periodic reports and documents which are complete within themselves as final.
- 2.9.4 Changes of a minor nature to correct obvious typing errors, misspelled words, etc., shall only be made when a technical change is made, unless the accuracy of the document is affected.
- 2.9.5 All revised pages shall be identified by a revision symbol and a new date. Each document shall contain a log of revised pages that will identify the revision status of each page with the revision symbol. This list shall follow the table of contents in each document. The line or lines revised on a given page shall be designated by the use of vertical line in the margin of the page, and the change authority shall be indicated adjacent to the change.
- 2.9.6 Contractor Type 1 documents shall not be submitted containing pen and ink markups which correct, add to, or change the text, unless schedule problems exist and approval is obtained in writing from the Contracting Officer. Such markups, however, shall not exceed 20 percent of the page content and shall be acceptable provided that the reproduced copies are legible. In addition, hand-drawn schematics, block diagrams, data curves, and similar charts may be used in original reports in lieu of formally prepared art work, as long as legibility of copies is not impaired. The Contracting Officer will determine acceptability.

3.0 DPD MAINTENANCE PROCEDURES

3.1 MSFC-Initiated Change: New and/or revised data requirements will be incorporated by contract modification to which the new or revised portion of the DPD will be appended. The contractor shall notify the Contracting Officer in the event a deliverable data requirement is imposed and is not covered by a DRD, or when a DRD is changed by a contract modification and for which no revision to DPD is appended. In such cases, the contractor shall submit the requested changes to MSFC for approval. See paragraph 3.3.1 for change procedures.

3.2 Contractor-Initiated Change: Contractor-proposed data requirements, or proposed changes to existing requirements shall be submitted to MSFC for approval.

3.3 DPD Change Procedures

3.3.1 Changes to a contractual issue of this DPD will be identified by MSFC on the Document Change Log and Page Revision Log. The actual revised material on the DPD page will be identified by placing a heavy vertical line in the right-hand margin extending the entire length of the change. In addition, the numerical control number of the contractual direction authorizing the change shall be placed adjacent to the vertical revision line. These revision identifiers shall be used to reflect the current revision only; any previous symbols on a page will be deleted by the current revision.

3.3.2 The date of the contractual direction paper, e.g., Change Order, Supplemental Agreement, or Contracting Officer's letter shall be entered under the "Status " column of the Page Revision Log adjacent to the affected page or DRD number, and in the "as of" block. The date that was in the "as of" block will be entered in the "Superseding" block.

3.3.3 The Document Change Log entitled "Incorporated Revisions" will be changed to indicate the number, portions affected, and associated Supplemental Agreement number, if applicable.

3.3.4 The Document Change Log entitled "Outstanding Revisions" is changed periodically to indicate outstanding Change Orders and Contracting Officer notification letters.

3.4 DPD Reissues

3.4.1 When conditions warrant, the DPD will be reissued by MSFC and will supersede the existing DPD in its entirety. Reissues will be issued by contractual direction.

3.4.2 All revision symbols (vertical lines and contractual direction control numbers) will be removed from all pages; revision dates shall remain in the Date Revised block on DRD's that have been revised. The issue symbol, which will commence with "A" and progress through "Z," will be entered in the DPD identification block of each DRD page of the DPD.

HUNTSVILLE OPERATIONS SUPPORT CENTER (HOSC)

Data Requirements List

<u>DRD</u>	<u>DATA TYPE</u>	<u>TITLE</u>	<u>OPR</u>
CD - Contractual Data			
1016CD-001	2	Information Technology Security Plan(s)	AD33
1016CD-002	3	On-site Employee Location List	PS40
1016CD-003	3	Technology Reports	CD30
CM - Configuration Management			
1016CM-001	1	Configuration Management Plan	ED43
LS - Logistics Support			
1016LS-001	2	Government Property Management Plan	AD41
MA - Management			
1016MA-001	1	Management Plan	FD40
1016MA-002	3	Financial Management Report (533M)	RS40
1016MA-003	3	Monthly Progress Report	FD40
1016MA-004	2	Work Breakdown Structure (WBS) and WBS Dictionary	RS40/VS10
1016MA-005	3	IT Security Status Report	FD40
1016MA-006	3	Systems Status Monthly Report	FD40
1016MA-007	3	HOSC Software Release Quarterly Report	FD40
1016MA-008	3	Performance Requirements Summary	FD40
OP - Operations			
1016OP-001	2	Operations/Maintenance Plan	FD40
QE - Quality Engineering			
1016QE-001	1	Software Quality Assurance Plan	QD10
SA - Safety			
1016SA-001	1	On-site Safety and Health Plan	QD50/AD10/AD60
1016SA-002	3	Mishap and Safety Statistics Reports	QD50
SE - System Engineering			
1016SE-001	2	System Development Plan	FD40
VR - Verification			
1016VR-001	2	Verification Plan	FD40

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A 2. **DRD NO.:** 1016CD-001
3. **DATA TYPE:** 2 4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/2
6. **TITLE:** Information Technology Security Plan(s)
7. **DESCRIPTION/USE:** To document information technology security risk management and safeguards for protection of unclassified NASA electronic information and data processed by Federal general support computer systems and major software applications.
8. **OPR:** AD33 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 45 days after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Revise as required
13. **REMARKS:** The information technology security plan(s) must be consistent with and further detail the approach contained in the offeror's proposal or sealed bid that resulted in the award of this contract and in compliance with the requirements stated in NFS 1852.204-76.
14. **INTERRELATIONSHIP:** PWS paragraph 2.5
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** Information Technology Security Plan(s) shall document the safeguards necessary to ensure sufficient availability, integrity, and confidentiality of that information accessed or managed within the systems and/or applications, based on the contractor's assessment of risks.
- 15.2 **APPLICABLE DOCUMENTS:**

MPD 2810.1	<i>IT Security</i>
NPG 2810.1	<i>Security of Information Technology</i>
NFS 1804.470-3	<i>Security Plan for Unclassified Federal Information Technology systems</i>
NFS 1852.204-76	<i>Security Requirements for Unclassified Information Technology Resources</i>
- 15.3 **CONTENTS:** The Information Technology Security Plan shall meet the requirements of the applicable documents in 15.2 and document how the contractor and subcontractor personnel will utilize, in a secure manner commensurate with the sensitivity of the information involved, those Federal computer systems and software applications managed by others. The plan shall describe the contractor's processes for implementing information security including personnel background screening, personnel awareness and training, information protection, and security incident response.

Additionally, a separate system-level Information Technology System Security Plan shall be prepared for each Federal general support computer system or major software application managed by the contractor and/or subcontractor personnel in the performance of this contract. The Information Technology System Security Plan(s) shall meet the requirements of the applicable documents in 15.2. NPG 2810.1 defines "general support computer systems" and "major applications" and provides plan requirements for both.

DRD Continuation Sheet**TITLE:** Information Technology Security Plan (s)**DRD NO.:** 1016CD-001**DATA TYPE:** 2**PAGE:** 2/2

15. **DATA PREPARATION INFORMATION (CONTINUED):**15.4 **FORMAT:** Contractor format is acceptable.15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016CD-002
3. **DATA TYPE:** 3
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/1
6. **TITLE:** On-Site Employee Location Listing
7. **DESCRIPTION/USE:** To assist NASA in conducting contractor floor checks.
8. **OPR:** PS10 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Fifteenth of month following first month of operation after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update quarterly. If deemed necessary by the Contracting Officer, the contractor shall submit the list at times other than stated.
13. **REMARKS:** Reference is made to FAR 52.215-2, Federal Acquisition Regulation Clause: *Audit and Records – Negotiations* (June 1999).
14. **INTERRELATIONSHIP:** PWS paragraphs 2.1.b, 4.6
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The On-Site Employee Location Listing shall provide NASA with a list of all on-site contractor employees working under this contract and their designated locations.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The list shall include the following information for each employee: employee's name, position, phone number, e-mail address, company affiliation, location (building/room number), shift assignment, supervisor's name, and supervisor's location (building/room number).
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016CD-003
3. **DATA TYPE:** 3
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/3
6. **TITLE:** Technology Reports
7. **DESCRIPTION/USE:** Provides NASA with technical information concerning any invention, discovery, improvement, or innovation made by a contractor in the performance of work under this contract for the purpose of disseminating this information to obtain increased use. Also, to provide NASA with data to review for possible patentable items.
8. **OPR:** CD30 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:**
Disclosure of Invention and New Technology (NASA Form 1679): Within 2 months of identification of subject invention.
Interim NASA-MSFC Technology Report (MSFC Form 4204): 12 months from the date of the contract.
Utilization Report: Upon Contracting Officer's request.
12. **SUBMISSION FREQUENCY:**
Disclosure of Invention and New Technology (NASA Form 1679): For each subject invention.
Interim NASA-MSFC Technology Report (MSFC Form 4204): Every 12 months.
Final NASA-MSFC Technology Report (MSFC Form 4204): Three months after completion of contracted work.
Utilization Report: No more frequently than annually.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.13
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Technology Reports include technical detail as is necessary to identify and fully describe a "Subject Invention". Per FAR 52.227-11, "Subject Invention" means any invention of the contractor conceived or first actually reduced to practice in the performance of work under this contract.
- 15.2 **APPLICABLE DOCUMENTS**
FAR 52.227-11 *Patent Rights - Retention by Contractor (Short Form) (June 1997) - As modified by NASA FAR Supplement 1852.227-11*
- 15.3 **CONTENTS:** The Technology Reports consist of:
 - a. **Disclosure of Invention and New Technology (Including Software):** In accordance with FAR 52.227-11(c), the disclosure to the agency shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for

DRD Continuation Sheet

TITLE: Technology Reports

DRD NO.: 1016CD-003

DATA TYPE: 3

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15. DATA PREPARATION INFORMATION (CONTINUED):

publication at the time of disclosure. In addition, after disclosure to the agency, the Contractor will promptly notify the agency of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Contractor. This reporting requirement may be met by completing NASA Form 1679 (February 1998). Use of this form is preferred; however, if the form is not used the following information should be provided in order to meet the reporting requirement:

1. Descriptive title.
2. Innovator(s) name(s), title(s), phone number(s), and home address(es).
3. Employer when innovation made (name and division).
4. Address (place of performance).
5. Employer status (e.g., Government, college or university, non-profit organization, small business firm, large entity).
6. Origin (e.g., NASA grant number, NASA prime contract number, subcontractor, joint effort, multiple contractor contribution, other).
7. NASA Contracting Officer's Technical Representative (COTR).
8. Contractor/grantee New Technology Representative.
9. Brief abstract providing a general description of the innovation:
 - (a) Description of the problem or objective that motivated the innovation's development.
 - (b) Technically complete and easily understandable description of innovation developed to solve or meet the objective.
 - (c) Unique or novel features of the innovation and the results or benefits of its application.
 - (d) Speculation regarding potential commercial applications and points of contact (including names of companies producing or using similar products).
10. Additional documentation.
11. Degree of technological significance (e.g., modification of existing technology, substantial advancement in the art, major breakthrough).
12. State of development (e.g., concept only, design, prototype, modification, production model, used in current work).
13. Patent status.
14. Dates or approximate time period during which this innovation was developed.
15. Previous or contemplated publication or public disclosure including dates.
16. Answers to the following questions (for software only):
 - (a) Using outsiders to beta-test code? If yes, done under beta-test agreement?
 - (b) Modifications to this software continue by civil servant and/or contractual agreement?
 - (c) Previously copyrighted (if so, by whom)?
 - (d) Were prior versions distributed (if yes, supply NASA or Contractor contract)?
 - (e) Contains or is based on code owned by a non-federal entity (if yes, has a license for use been obtained)?
 - (f) Has the latest version been distributed without restrictions as to use or disclosure for more than one year (if yes, supply date of disclosure)?
17. Name(s) and signature(s) of innovator(s).

DRD Continuation Sheet

TITLE: Technology Reports

DRD NO.: 1016CD-003

DATA TYPE: 3

PAGE: 3/3

15. DATA PREPARATION INFORMATION (CONTINUED):

- b. Interim NASA-MSFC Technology Report: This report shall consist of a complete listing of subject inventions for the previous 12-month period or certify that there are none. Completion of MSFC Form 4204 will satisfy this reporting requirement. Use of the form is preferred; however an alternate format is acceptable provided all required information is provided.
- c. Final NASA-MSFC Technology Report: This report shall consist of a comprehensive list of all subject inventions for the duration of the contract or certification that there are none. Completion of MSFC Form 4204 will satisfy this reporting requirement. Use of the form is preferred; however an alternate format is acceptable provided all required information is provided.
- d. Report on utilization of subject inventions: This report provides information on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the contractor or its licensees or assignees. Per FAR 52.227-11, this report shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the contractor, and other data requested by the Contracting Officer.

15.4 FORMAT:

The Disclosure of Invention and New Technology (Including Software) report may use NASA Form 1679 (February 1998) or provide sufficient information to meet the reporting requirement.

The interim and final NASA-MSFC Technology Reports may use MSFC Form 4204 (February 1993) or provide sufficient information to meet the reporting requirement.

Referenced forms may be obtained from the Contracting Officer or New Technology Representative.

15.5 MAINTENANCE: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016CM-001
3. **DATA TYPE:** 1
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/1
6. **TITLE:** Configuration Management Plan
7. **DESCRIPTION/USE:** To describe the contractor's method for accomplishing the configuration management requirements of the contract using the existing configuration management system as a baseline
8. **OPR:** FD40 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** One time, revise as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.9
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Configuration Management Plan (CMP) provides the contractor's proposed management approach for implementation of configuration management.
- 15.2 **APPLICABLE DOCUMENTS:**
MSFC-PLAN-2929 Configuration Management Plan for the Huntsville Operations Support Center (HOSC)
- 15.3 **CONTENTS:** The plan shall describe the contractors approach to the Configuration Management of the hardware, software, firmware and documentation to be utilized on this contract. The plan shall be compatible with MSFC-PLAN-2929, Configuration Management Plan for the Huntsville Operations Support (HOSC). The plan shall include configuration identification, interface control, change control, documentation, status accounting, and configuration verification. The plan shall include a schedule referenced to phase-in of all the major milestones needed to track implementation.
- 15.4 **FORMAT:** Contractor format is acceptable with MSFC approval.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue. Update as required to maintain current with program changes.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016LS-001
3. **DATA TYPE:** 2
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/1
6. **TITLE:** Government Property Management Plan
7. **DESCRIPTION/USE:** To describe the method of controlling and managing Government property.
8. **OPR:** AD41 9. **DM:** FD40
10. **DISTRIBUTION:** Cognizant property administrator
11. **INITIAL SUBMISSION:** Preliminary three months after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Final one year after ATP, revise as required
13. **REMARKS:** This document shall be the official contract requirements document for the control and identification of all Government property.
14. **INTERRELATIONSHIP:** PWS paragraph 2.4
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Government Property Management Plan defines the contractor's methods of care, accounting, and control of Government property.
- 15.2 **APPLICABLE DOCUMENTS**

FAR NPG 5100.4B NPG 4200.1E MWI 4200.1A	<i>Federal Acquisition Regulation, Part 45</i> <i>Federal Acquisition Regulation Supplement, (NASA/FAR Supplement) Part 18-45 and latest revisions thereto</i> NASA Equipment Management Manual Equipment Control
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- 15.3 **CONTENTS:** This plan shall satisfy the requirements of the documents listed in 15.2, and the contract. This plan shall consist of those procedures which constitute the contractor's property management system and shall include the following categories:

a. Property management.	i. Reports.
b. Acquisition.	j. Consumption.
c. Receiving.	k. Utilization.
d. Identification.	l. Maintenance.
e. Records.	m. Subcontractor control.
f. Movement.	n. Disposition.
g. Storage.	o. Contract close-out.
h. Physical inventories.	
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016MA-001
3. **DATA TYPE:** 1
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/2
6. **TITLE:** Management Plan
7. **DESCRIPTION/USE:** To provide an overall description of the process and methods planned for accomplishing the Performance Work Statement.
8. **OPR:** FD40 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 30 days after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.1.a
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Management Plan provides the basic planning document which describes the contractor's overall plan for performing the contracted scope of work.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Management Plan shall provide a description of the contractor's management concepts, practices, approaches, plans, and schedules necessary for accomplishing (managing and controlling) the tasks described in the Performance Work Statement. In addition, the plan shall present those management systems to be utilized to define and delegate task assignments and shall define the organizational relationships of the contractor, subcontractors, and the Government.

Management Overview - A brief description of the project objectives, the system to be furnished, and the equipment (systems), and software that is to be provided. Include a concise summary of the contractor's management organization responsible for performance of the contract, including interrelationships with the Work Breakdown Structure (WBS), within the company and with other contractors, and proposed relationships with the NASA project management.

Management Systems - This plan shall briefly describe how the various management systems are to be integrated and used for the overall project management and reporting of:

 - a. Project management.
 - b. Contract management.
 - c. Financial management.
 - d. Data requirements management.
 - e. Schedules (planning and control).
 - f. Performance management (cost/schedule/technical).
 - g. Configuration management.
 - h. Engineering management.
 - i. Logistics management.
 - j. Test/verification management.
 - k. Subcontractor/vendor management.

DRD Continuation Sheet

TITLE: Management Plan

DRD NO.: 1016MA-001

DATA TYPE: 1

PAGE: 2/2

15. DATA PREPARATION INFORMATION (CONTINUED):

- l. Procurement management.
- m. Government furnished property (GFP) management.
- n. Systems engineering management.
- o. Safety, reliability, maintainability, quality assurance.
- p. Automated information management systems.
- q. Communications.
- r. Support equipment management.
- s. Spares philosophy and planning.
- t. Facilities utilization and management.
- u. Project reviews.
- v. Environmental impact management.
- w. Risk Management.

NOTE: It is not intended that this plan duplicate other plans called for in the Data Requirements List. This plan should summarize the overall project and reference or summarize other plans where appropriate and shall reference contractor internal procedures where applicable.

15.4 **FORMAT:** Contractor format is acceptable.

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016MA-002
3. **DATA TYPE:** 3
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/1
6. **TITLE:** Financial Management Report (533M)
7. **DESCRIPTION/USE:** To provide monthly financial reports for monitoring program costs. The 533 reports are the official cost documents used at NASA for cost type, price re-determination, and fixed price incentive contracts.
8. **OPR:** RS40 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** No later than 10 working days following the end of the contractor's accounting month and not more than 44 calendar days after Authority To Proceed (ATP).
12. **SUBMISSION FREQUENCY:** No later than 10 working days following the end of the contractor's accounting month
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.2
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Financial Management Report provides data on accumulated costs and funding projections for management of the contract.
- 15.2 **APPLICABLE DOCUMENTS**
NFS 1852.242-73 *NASA Contractor Financial Management Reporting, (July 1997)*
NPG 9501.2 *NASA Contractor Financial Management Reporting*
- 15.3 **CONTENTS:** The elements of cost for financial reporting shall be mutually agreed by the contractor and NASA project office and cover labor hours by function, direct labor cost, materials, subcontracts, interdivisional work, other direct rates, overhead by pool, fringe, G&A, and fee. Changes or additions to elements of cost shall be by mutual agreement between the contractor and the NASA project manager. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. The 533M Report shall include actuals and projections at the total contract level. A summary page at the contract level shall be included reflecting the cumulative since inception cost for the contract.
- 15.4 **FORMAT:** The NASA Form 533M shall be prepared per NPG 9501.2 and NFS 1852.242-73. Contractor format is acceptable provided all necessary requirements are met. Electronic submission of contractor data is required.
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016MA-003
3. **DATA TYPE:** 3
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/2
6. **TITLE:** Monthly Progress Report
7. **DESCRIPTION/USE:** To provide data for the assessment of contract progress and HOSC system performance/quality. To provide visibility to contractor and MSFC Management of actual and potential problems, and progress toward meeting the requirements of the contract.
8. **OPR:** FD40 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Ten calendar days following the end of the first two months after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:**
 - a. Progress Report: Monthly, no later than the 20th day of the calendar month following the end of the accounting month
 - b. Metrics: Monthly, no later than the 10th day of the calendar month following the end of the accounting month
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.1.d, 3.2, 3.3, 4.5, 4.6
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Monthly Progress Report shall provide a comprehensive status on all active tasks and include the necessary information to assess status and identify problems that need resolution for accomplishment of the contract tasks. The Metrics shall provide information regarding the quality and timeliness of overall HOSC systems performance and product deliveries.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:**
 - a. Progress Report:
 1. For each WBS Level II task, provide the following by facility/project:
 - (a) Narrative report of status to WBS Level III
 - (b) Narrative report of planned effort for next reporting period.
 - (c) Schedule, showing progress of Level III elements.
 - (d) Labor expended by category.
 2. Status of significant Problem Reports, Change Requests, and other issues as appropriate, including anticipated schedule and resource impacts.

DRD Continuation Sheet

TITLE: Monthly Progress Report

DRD NO.: 1016MA-003

DATA TYPE: 3

PAGE: 2/2

15. DATA PREPARATION INFORMATION (CONTINUED):

- b. **Metrics:** The specific metrics data to be provided shall be determined by mutual agreement between the contractor and the NASA project manager. System performance/quality and product delivery metrics shall cover the following major topics:

1. Software development and test.
2. Problem reports.
3. Facility outages.
4. Help desk information.
5. Key accomplishments and plans.

- 15.4 **FORMAT:** The Monthly Progress Report shall be in report format. Submittal shall be standard hardcopy or other media as directed by the Contracting Officer. The Metrics data shall be in spreadsheet or other format, as mutually agreed to between the contractor and the NASA project manager. Electronic submittal of the Metrics data is required.

- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016MA-004
3. **DATA TYPE:** 2
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/2
6. **TITLE:** Work Breakdown Structure (WBS) and WBS Dictionary
7. **DESCRIPTION/USE:** To establish a framework for reporting program cost, schedule, and technical performance. To provide a basis for uniform planning, reporting status, program visibility, and assignment of responsibilities.
8. **OPR:** RS40/VS10 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 30 days after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update as required. Revised pages shall be submitted 10 calendar days after contract WBS changes (following Government approval).
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.2
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Work Breakdown Structure (WBS) establishes a product-oriented logical subdivision of hardware, software, services, facilities, etc., that make up the total project scope of work. The WBS Dictionary provides a narrative description of the tasks and effort to be performed in each WBS element.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:**
 - a. The WBS index shall include:
 1. Line item number.
 2. WBS elements/tasks listed by title and indented to reflect the level (e.g., level 1 is total contract; levels 2 and following are successively lower levels).
 3. Indication of phase (i.e., research, development, test and evaluation; or production; or both) with which the WBS element is associated.
 4. Contract line item associated with the WBS element.
 5. Performance Work Statement (PWS) paragraph numbers associated with the WBS element.
 6. Specification number of the specification that covers the WBS element (if applicable). If the specification is associated with more than one WBS element, indicate the specification paragraph numbers associated with the WBS element.
 7. Contract end item number of WBS element (if applicable).

DRD Continuation Sheet**TITLE:** Work Breakdown Structure (WBS) and WBS Dictionary **DRD NO.:** 1016MA-004**DATA TYPE:** 2**PAGE:** 2/2**15. DATA PREPARATION INFORMATION (CONTINUED):**

- b. WBS Dictionary - The WBS dictionary shall describe the technical and cost content of every WBS element and efforts associated with each element (e.g., design, development, manufacturing). For WBS elements specified elsewhere for cost reporting, the WBS dictionary definitions shall also include the exact narrative of the directly associated PWS paragraphs. The WBS dictionary shall be arranged in the same order as the contract WBS index. Following the description of the WBS element shall be a listing of lower level WBS elements. The WBS dictionary shall include the following for each WBS element:
1. WBS element title, number, and element task description.
 2. Performance measurement criteria (PMC).
 3. PWS paragraph number.
 4. Specification (number and title) associated with the WBS element.
 5. Contract line item associated with the WBS element.
 6. Date, revision number, revision authorization and approved changes.
 7. Contract end item/data item number and quantity.
 8. Cost content and description.
 9. WBS code and work order/work authorization.
 10. Technical content.
 11. System contractor.
 12. Associate or subcontractor.
 13. Applicable PWS narrative.

15.4 **FORMAT:** The WBS shall be in a chart format showing element relationships, arranged in the same order as the WBS provided in the Request for Proposal. The WBS Dictionary shall be ordered in consonance with the WBS index and shall reference each WBS element by its identifier and name.

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016MA-005
3. **DATA TYPE:** 3
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/1
6. **TITLE:** IT Security Status Report
7. **DESCRIPTION/USE:** To provide metrics on the security alerts/patches and prepare a monthly summary. To provide visibility to contractor and MSFC Management of actual and potential IT Security problems and progress toward meeting the requirements of the contract.
8. **OPR:** FD40 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Ten calendar days following the end of the first month after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Monthly, no later than the 10th day of the calendar month following the end of the accounting month
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 4.4.5
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The IT Security Status Report shall provide the metrics necessary to ensure that the IT Security systems is being properly monitored and that all alerts are dealt with and that the patches are installed on the appropriate systems in a timely manner.
- 15.2 **APPLICABLE DOCUMENTS:**

NPG 2810.1	<i>Security of Information Technology</i>
NFS 1804.470-3	<i>Security Plan for unclassified Federal Information Technology systems</i>
NFS 1852.204-76	<i>Security Requirements for Unclassified Information Technology Resources</i>
- 15.3 **CONTENTS:** The IT Security Status Report shall provide metrics on the number of security alerts, the number of security patches received and installed, and the system(s) the security patch(es) were installed on for the given month and the total since ATP.
- 15.4 **FORMAT:** The IT Security Status Report shall be in presentation chart format. Submittal shall be standard hard copy or other media as directed by the Contracting Officer.
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016MA-007
3. **DATA TYPE:** 3
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/1
6. **TITLE:** HOSC Software Release Quarterly Report
7. **DESCRIPTION/USE:** To provide identification and tracking measures or metrics for HOSC Software releases. The release information, as established by NPD 2210.1, will be reported quarterly to the Software Release Authority at MSFC to enable compliance with reporting to the Director, Commercial Technology Division at NASA Headquarters.
8. **OPR:** FD40 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Ten calendar days following the end of the first three months after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Quarterly, no later than the 20th day of the calendar month following the end of the accounting month.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 4.4.5
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The HOSC Software Release Quarterly Report shall provide a comprehensive status on the usage of all HOSC software releases.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** For each software product (Eg., EHS, EPC, IVoDS), provide a list of approved users, including user organization/location/etc., applicable payload/experiment, and software version.
- 15.4 **FORMAT:** The report shall be in spreadsheet format. Submittal shall be standard hard copy or other media as directed by the Contracting Officer.
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016MA-008
3. **DATA TYPE:** 3
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/1
6. **TITLE:** Performance Requirements Summary
7. **DESCRIPTION/USE:** To provide necessary data for the assessment of the contractor performance incentive fee criteria.
8. **OPR:** FD40 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Ten calendar days following the end of the first three months after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Monthly, no later than the 10th day of the calendar month following the end of the accounting month.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 4.4
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Performance Requirements Summary will provide metrics regarding the availability of mission critical services, to be used in the determination of the performance incentive fee.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:**
The following metrics shall be provided:
 - a. Percentage (%) of service availability during the month, for each of the following mission services:
 1. Telemetry Processing & Distribution.
 2. Command Preparation & Execution.
 3. Provision of Operations Control Products.
 4. Voice Communication.
 - b. For each outage encountered during the month:
 1. Service affected.
 2. Duration of outage.
 3. Cause of outage.
- 15.4 **FORMAT:** The report shall be in spreadsheet format. Submittal shall be standard hard copy or other media as directed by the Contracting Officer.
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016OP-001
3. **DATA TYPE:** 2
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/2
6. **TITLE:** Operations/Maintenance Plan
7. **DESCRIPTION/USE:** To provide the contractor and the Government a baseline document for operability/maintainability.
8. **OPR:** FD40 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Once, update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 4.0
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Operations/Maintenance Plan shall define all system operability and maintainability activities appropriate for providing the services and performing the functions set forth in the PWS.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** This plan shall define the ground operations and maintenance support of each facility. The plan describes organizational relationships, functional roles, responsibilities and methodologies, but does not provide specific operating procedures, capabilities or requirements. The plan shall address the overall operations and maintenance philosophy and capacities of integrated operations and peripheral support elements. The plan shall include:
 - a. Operating philosophy
 1. Organizational relationships.
 - (a) Internal and external relationships.
 - (b) Functional roles.
 - (c) Responsibilities and methodologies.
 2. Operational services.
 - (a) Standard services.
 - (b) Optional services.
 - (c) Responsiveness parameters.
 - (1) Return to service.
 - (2) Operational response time.
 3. Operational tools.

DRD Continuation Sheet

TITLE: Operations/Maintenance Plan

DRD NO.: 1016OP-001

DATA TYPE: 2

PAGE: 2/2

15. DATA PREPARATION INFORMATION (CONTINUED):**b. Maintenance philosophy.****1. Availability parameters.**

(a) Overall percentage of system availability.

(b) Preventive maintenance.

(1) Schedule for performing.

(2) Downtime required.

(3) Remedial maintenance.

(a) Response time.

(b) Meantime to repair.

(4) Methodology used to establish parameters.

2. Identification and analysis of risks.

(a) Impact of non-availability.

(b) Trade-offs.

3. Detailed performance approach.

(a) Preventive maintenance.

(b) Remedial maintenance.

15.4 FORMAT: Contractor format is acceptable.**15.5 MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** **1016QE-001**
3. **DATA TYPE:** 1
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/1
6. **TITLE:** Software Quality Assurance Plan
7. **DESCRIPTION/USE:** To describe the contractor's method for accomplishing the Software Quality Assurance requirements for the contract.
8. **OPR:** QD10 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 3.1.2
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Software Quality Assurance Plan (SQAP) details the procedures, reviews, and audits required to accomplish Software Quality Assurance.
- 15.2 **APPLICABLE DOCUMENTS**
IEEE Std 730-1998 *IEEE Standard for Software Quality Assurance Plans*
- 15.3 **CONTENTS:** The Software Quality Assurance Plan shall provide the information defined in IEEE Std 730-1998.
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue. Update as required, to maintain current with program changes.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A 2. **DRD NO.:** 1016SA-001
3. **DATA TYPE:** 1 4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/3
6. **TITLE:** On-site Safety and Health Plan
7. **DESCRIPTION/USE:** To provide the contractor and the Government a baseline document for planning, management, control, and implementation of the contractor's industrial/occupational safety, health, and environmental program.
8. **OPR:** AD60/QD50/AD10 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Preliminary with proposal
12. **SUBMISSION FREQUENCY:** 10 days after Authority To Proceed (ATP); update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.7; FAR 1852.223-70, *Safety and Health*; FAR 52.223-3, *Hazardous Material Identification and Material Safety Data*; FAR 52.23-5, *Pollution Prevention and Right-to-Know Information*, FAR 52.223-10, *Waste Reduction Program*.
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The On-site Safety and Health Plan describes the contractor's method of implementing occupational safety, health, and environmental standards over the duration of the contract.
- 15.2 **APPLICABLE DOCUMENTS:** Implementation of the following Occupational Safety and Health Standards and applicable requirements shall be specified in the plan.

29 CFR 1910	<i>Department of Labor; Occupational Safety and Health Administration Standards for General Industry</i>
40 CFR	<i>Protection of the Environment</i>
ANSI Standards applicable to the scope of this contract	
MPG 8500.1	<i>MSFC Environmental Management Program</i>
MPG 1040.3	<i>MSFC Emergency Plan</i>
MPG 1840.3	<i>MSFC Hazardous Chemicals in Laboratories Protection Program</i>
MPG 1810.1	<i>MSFC Occupational Medicine</i>
MPD 1840.3	<i>MSFC Respiratory Protection Program</i>
MPD 1840.2	<i>MSFC Hearing Conservation Program</i>
MPD 1840.1	<i>MSFC Environmental Health Program</i>
MPG 1840.2	<i>MSFC Hazard Communication Program</i>
MWI 3410.1	<i>Personnel Certification Program</i>
MPG 8715.1	<i>Marshall Safety, Health and Environmental (SHE) Program</i>
MPD 8900.1	<i>Medical Operations Responsibilities for Human Space Flight Programs (NOTE: This document only applies to Space Station contracts)</i>
NFPA Standards	<i>National Fire Codes</i>
NPG 8715.3	<i>NASA Safety Manual</i>
NASA-STD-8719.11	<i>Safety Standard for Fire Protection</i>

DRD Continuation Sheet

TITLE: On-site Safety and Health Plan

DRD NO.: 1016SA-001

DATA TYPE: 2

PAGE: 2/3

15. DATA PREPARATION INFORMATION (CONTINUED):

15.3 **CONTENTS:** The plan shall describe the manner in which the contractor shall implement the intent of the requirements of the applicable documents as they pertain to the specific performance work statement tasks to be performed. The plan shall define the safety, health, and environmental program, objectives and goals, management structure, and detailed description of the total safety program including responsibilities, procedures, reporting, training, compliance methodologies, and interface and coordination activities. The On-site Safety and Health Plan shall include:

- a. Management commitment and employee involvement in the safety and health program:
 1. Statement of management policy, commitment, and accountability to provide for the safety and health of personnel (i.e., employees, customers, and public) and property and compliance with EPA, OSHA and NASA requirements.
 2. Provision for top-level management monthly safety and health committee meetings.
 3. Descriptions of safety and health awareness and motivation programs, including documented safety meeting requirements, and documented safety awareness training for employees. (Safety meeting statistics documented in the Supervisors Safety Web page: http://msfcsma3.msfc.nasa.gov/dbwebs/apps/sswp/SSWP_login.taf)
 4. Means of program evaluation, identifying duties, methods and frequency for internal evaluation of the safety and health program, and identification of personnel who perform evaluations and to whom evaluations are reported and who approves corrective action.
 5. Flowdown of safety responsibilities between appropriate tiers (i.e., subcontractors).
 6. Identification of employees (by type, classification, and qualification) responsible for the implementation of the above elements.
- b. System and worksite hazard analysis:
 1. Methods of hazard identification and control, e.g., hazard analysis and risk assessment.
 2. Descriptions of OSHA programs that require documented plans (e.g., Personnel Protective Equipment (PPE), Confined Space, and Lockout/Tagout, etc. Include the interrelationships with the MSFC plans.) (Note: only programs applicable to the contract need to be addressed.)
 3. Requirements for formal safety inspections and correction of deficiencies.
 4. Requirements for documented safety visits (e.g., one per month per supervisor) documented in the Supervisors Safety Web page.
 5. Schedules of the frequency and documentation requirements for inspections, plan and procedure reviews, and certifications.
- c. Hazard prevention and control:
 1. Methods to include clear statements of hazardous situations and necessary cautions in appropriate detail plans, procedures, and other working documents.
 2. Controls over the procurement, storage, issuance, and use of hazardous substances and procedures for recycling and disposal of hazardous waste.
 3. Method of ensuring a documented emergency management program. Include a list of emergency points of contract. (Note: on-site contractors may use MPG 1040.3.)
 4. Method of reporting and investigating all mishaps and close calls, including an outline of reporting requirements and a description of how root cause analysis is to be accomplished.
 5. Provisions for safety, health, and environmental services such as hazardous waste disposal, industrial hygiene monitoring, emergency medical support, hearing conservation program, and hazard communication.
 6. Provision for suspending work where safety or environmental conditions warrant such action.

DRD Continuation Sheet**TITLE:** On-site Safety and Health Plan**DRD NO.:** 1016SA-001**DATA TYPE:** 2**PAGE:** 3/3**15. DATA PREPARATION INFORMATION (CONTINUED):****d. Safety and health training:**

1. Means for training each employee to recognize hazards and avoid accidents, and assuring each employee has a clear understanding of the disciplinary program.
2. Provisions for training and certification of personnel performing potentially hazardous operations. Job categories under the contracted effort that require certification shall be identified. Personnel Certification for the identified job categories shall be tracked in the MSFC Certification Database (CERTRAK) in accordance with MWI 3410.1 "Personnel Certification Program."

e. Environmental compliance - Provisions for compliance with environmental laws and regulations by: reporting hazardous and toxic substance use; implementing green procurements; reducing, reusing, and recycling of hazardous and toxic substances prior to disposal; minimizing storm water pollution; ensuring equipment and processes permitted by applicable laws; and disposing of solid and liquid materials as permitted by applicable laws.**15.4 FORMAT:** Contractor format is acceptable.**15.5 MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016SA-002
3. **DATA TYPE:** 3
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/2
6. **TITLE:** Mishap and Safety Statistics Reports
7. **DESCRIPTION/USE:** To provide reporting of mishaps and related information required to produce metrics for MSFC.
8. **OPR:** QD50 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:**
 - a. Mishaps and Close Calls:
 1. Type A or B mishaps only: Immediate telephone notification (256-544-0046)
 2. Type A, B and C mishaps (applicable to onsite contractors only): Flash Report within 4 hours of knowledge on MSFC Form 4370, submitted either electronically (at https://msfcsma3.msfc.nasa.gov/s&ma_01/mishap/index.htm) or by telephone [Call 256-544-4357 (4-HELP); ask operator to fill out MSFC Form 4370 or Flash Report].
 3. All Mishaps (Type A, B, C, Incidents and Close Calls): Mishap Report NASA Form 1627 within 6 calendar days of Mishap
 4. All Mishaps: Monthly Follow-up Corrective Action Plan/Status as required until closed.
 5. Type A, B, and Close Calls with high Type A or B potential: Mishap Board Report after completion of investigation.
 - b. Safety Statistics (e.g., contract number, subcontractors, SIC/NAIC codes, number of employees, number of supervisors, etc.): submitted on MSFC Form 4371 by the 10th of the month following Authority To Proceed (ATP) and document the safety meeting statistics in the MSFC Supervisor Safety Web Page (SSWP) by the end of the second month after Authority To Proceed (ATP).
12. **SUBMISSION FREQUENCY:**
 - a. MSFC Form 4370 - Each occurrence of a mishap except as identified in section 11.a.2.
 - b. NASA Form 1627 - Each occurrence of a mishap. Corrective action status reports are due every 30 days until the final report is submitted.
 - c. MSFC Form 4371 - By the 10th of each month.
 - d. Mishap Board Report - Each occurrence of a Type A or B mishap, or as directed by Center management.
 - e. MSFC Supervisor Safety Web Page Input - By the end of each month.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.7
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Mishap and Safety Statistics Reports document all mishaps and close calls as required in NPG 8621.1.
- 15.2 **APPLICABLE DOCUMENTS**
 - NPG 8621.1 *NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Recordkeeping*
 - MWI 8621.1 *Close Call and Mishap Reporting and Investigation Program*

DRD Continuation Sheet**TITLE:** Mishap and Safety Statistics Reports**DRD NO.:** 1016SA-002**DATA TYPE:** 3**PAGE:** 2/2

15. DATA PREPARATION INFORMATION (CONTINUED):

15.3 CONTENTS: The reports shall contain the information required by NPG 8621.1. The contractor shall use the forms listed in 15.4 to report mishaps and related information required to produce the safety metrics.

15.4 FORMAT: The following formats shall be submitted:

- a. MSFC Form 4370, "MSFC Flash Mishap Report."
- b. NASA Form 1627, "NASA Mishap Report."
- c. MSFC Form 4371, "MSFC Contractor Safety Statistics."
- d. Mishap Board Report using the format provided in NPG 8621.1.
- e. SSWP at: http://msfcsma3.msfc.nasa.gov/dbwebs/apps/sswp/SSWP_login.taf

15.5 MAINTENANCE: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 1016 ISSUE: Revision A
2. DRD NO.: 1016SE-001
3. DATA TYPE: 2
4. DATE REVISED: 06-14-04
5. PAGE: 1/2
6. TITLE: System Development Plan
7. DESCRIPTION/USE: To describe systems engineering, integration, and development activities for the project.
8. OPR: FD40 9. DM: FD40
10. DISTRIBUTION: Per Contracting Officer's letter
11. INITIAL SUBMISSION: 60 days after Authority To Proceed (ATP)
12. SUBMISSION FREQUENCY: Update as required
13. REMARKS:
14. INTERRELATIONSHIP: PWS paragraph 3.1
15. DATA PREPARATION INFORMATION:
- 15.1 **SCOPE:** The System Development Plan describes the concepts and methodology for system engineering, hardware design and development, and software design and development.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:**
 - a. General requirements:
 1. The System Development Plan shall identify the concepts and methods to be employed for system engineering, hardware design and development, and software design and development.
 2. The plan shall serve as the implementation guide for HOSC facility development activities.
 - b. Systems engineering:
 1. The plan shall describe the contractor's system engineering activities for HOSC facilities and the methods to be utilized to accomplish these activities.
 2. The plan shall describe planning, requirements definition, requirements allocation, requirements/system analysis, market surveys, test support equipment definition, hardware/software integration (HSI), system integration, change evaluation, requirement/design review plans, GFP incorporation, design documentation, and design/development monitoring and coordination approaches.
 3. The plan shall describe the organization for managing system engineering activities including resource allocation, management methods, and activity coordination.
 - c. Hardware engineering:
 1. The plan shall describe the contractor's hardware engineering activities for HOSC facilities and the methods to be utilized to accomplish these activities.
 2. The plan shall describe hardware design/development methods, standards, and policies. The plan shall address development environment; drawing standards; prototyping policies; system sizing/capacity definition; product evaluations; GFP, COTS, existing component incorporation; design documentation; installation and delivery policies; hardware integration; developmental configuration management; and problem tracking.

DRD Continuation Sheet**TITLE:** System Development Plan**DRD NO.:** 1016SE-001**DATA TYPE:** 2**PAGE:** 2/2

15. DATA PREPARATION INFORMATION (CONTINUED):

3. The plan shall describe the organization for managing hardware engineering activities including resource allocation, management methods, and activity coordination.

d. Software Engineering

1. The plan shall describe the contractor's software engineering activities for HOSC facilities and the methods to be utilized to accomplish these activities.
2. The plan shall describe software design/development methods, standards, and policies. The plan shall address software lifecycle; development environment; coding standards; test and evaluation practices; prototyping policies; installation and delivery policies; product evaluation; GFP, COTS, existing software incorporation; design documentation; developmental configuration management; and problem tracking.
3. The plan shall describe the organization for managing software engineering activities including resource allocation, management methods, and activity coordination.

15.4 FORMAT: Contractor format is acceptable.**15.5 MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO:** 1016 **ISSUE:** Revision A
2. **DRD NO.:** 1016VR-001
3. **DATA TYPE:** 2
4. **DATE REVISED:** 06-14-04
5. **PAGE:** 1/1
6. **TITLE:** Verification Plan
7. **DESCRIPTION/USE:** To document the verification program to ensure HOSC facility systems and configurations are properly implemented and prepared.
8. **OPR:** FD40 9. **DM:** FD40
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 3.1.5
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Verification Plan describes the verification program concepts, methods, and organization for the verification of HOSC facility systems and configurations in support of new systems, system upgrades, and mission activities to ensure operational readiness.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The plan shall contain the following:
 - a. Description of the verification concept and methodology.
 - b. Overview of the verification program for each HOSC facility.
 - c. Description of the verification methods to be utilized and level of testing to be performed for new systems, system upgrades, and mission activities.
 - d. Management approach, organizational structure, and organizational responsibilities for the verification program.
 - e. Relationship of verification program to system engineering, development, and mission activities.
 - f. Position of verification activities within development and mission activity timelines.
 - g. Policies on use of verification equipment and environments and location of verification tests.
 - h. Policies on verification of developed items, COTS items, GFP items, and temporary items.
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.